

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of the claims in the present application.

Listing of Claims:

11. (Currently Amended) An electromechanically power-splitting hybrid drive system for a motor vehicle that includes an internal combustion engine, a first electric motor, a second electric motor, and a transmission coupling the first electric motor and the second electric motor, the hybrid drive system comprising:
 - a control system that, based on a coupling condition of the transmission, calculates respective target rotation speeds and target torques for the internal combustion engine, the first electric motor, and the second electric motor; and
 - a plurality of rotation speed controllers for the internal combustion engine, the first electric motor, and the second electric motor, wherein:
 - the rotation speed controllers compare the calculated target rotation speeds with the pertinent actual rotation speeds, and
 - in the case of a ~~system~~ deviation between one of the actual rotation speeds and the pertinent target rotation speed, the rotation speed controllers calculate, on the basis of the ~~system~~ deviation, at least one additional torque that are taken into account, in addition to at least one of the target torques calculated by the control system, in controlling the torque of the internal combustion engine, the first electric motor, and the second electric motor.
12. (Previously Presented) The hybrid drive system as recited in Claim 11, wherein:
 - the rotation speed controller for the internal combustion engine includes one of an I controller, a PI controller, and a PID controller, and
 - the rotation speed controllers of the first electric motor and the second electric motor include one of a P controller and a PD controller.

13. (Previously Presented) The hybrid drive system as recited in Claim 11, wherein:

the rotation speed controllers are in each case part of a decentralized rotation speed control loop of one of the internal combustion engine, the first electric motor, and the second electric motor.

14. (Previously Presented) The hybrid drive system as recited in Claim 11, wherein:

the rotation speed controllers do not communicate with one another.

15. (Previously Presented) The hybrid drive system as recited in Claim 11, further comprising:

a bus system via which the rotation speed controllers communicate with the control system.

16. (Previously Presented) The hybrid drive system as recited in Claim 11, wherein:

the control system specifies controller parameters of at least one of: rotation speed control loops including a rotation speed control loop of the internal combustion engine, and

an initialization of an integral component of the rotation speed control loop of the internal combustion engine.

17. (Canceled).

18. (Previously Presented) A method for regulating an electromechanically power-splitting hybrid drive system of a motor vehicle that includes an internal combustion engine, a first electric motor, a second electric motor, and a transmission coupling the first electric motor and the second electric motor, the method comprising:

based on coupling conditions of the transmission, calculating respective target rotation speeds and target torques for the internal combustion engine, the first electric motor, and the second electric motor;

comparing the respective target rotation speeds with corresponding actual rotation speeds of the internal combustion engine, the first electric motor, and the second electric motor;

in the case of a system deviation between one of the actual rotation speeds and the corresponding target rotation speed, calculating at least one additional torque on the basis of the system deviation, and taking into account the at least one additional torque, in addition to the target torques, in controlling the torque of the internal combustion engine, the first electric motor, and the second electric motor.

19. (Previously Presented) The method as recited in Claim 18, wherein the target rotation speeds are calculated on the basis of an accelerator pedal position, an electrical power necessary for an electrical system of the motor vehicle, and actual rotation speeds of wheels of the motor vehicle or an actual rotation speed of an output shaft of the transmission.
20. (Previously Presented) The method as recited in Claim 18, wherein:
the target torques contain components to compensate for inertias in the context of a dynamic operation.